HDCVI Fisheye Camera User's Manual

Version 1.0.0

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# Welcome

Thank you for purchasing our HDCVI PIR camera!

This user's manual is designed to be a reference tool for your system.

Please read the following safeguard and warnings carefully before you use this series product! Please keep this user's manual well for future reference!

# **Important Safeguards and Warnings**

### 1. Electrical safety

- All installation and operation here should conform to your local electrical safety codes.
- The power shall conform to the requirement in the SELV (Safety Extra Low Voltage) and the Limited power source is rated DC 12V in the IEC60950-1. (Power supply requirement is subject to the device label).
- Please install easy-to-use device for power off before installing wiring, which is for emergent power off when necessary.
- Please check if the power supply meets the requirements of working voltage of the camera before operating the device (The material and length of the power supply cable will influence terminal voltage value).
- Please prevent the line cord from being trampled or pressed, especially the plug, power socket and the junction from the device.

### 2. Environment

- Please don't aim the device at strong light (such as lighting, sunlight and so on) to focus.
- Please transport, use and store the device within the range of allowed humidity and temperature.
- Please do not allow water and other liquid falling into the camera in case that the internal components are damaged.
- Please keep the sound ventilation in case of heat accumulation.
- Heavy stress, violent vibration or water splash are not allowed during transportation, storage and installation.
- Please pack the device with standard factory packaging or material with same quality when transporting the device.
- It is recommended to use the device together with lightning protection device to enhance lightning protection effect.
- It is recommended to GND the device to enhance device reliability.
- It is advised to use qualified video transmission cable to improve video quality. It is recommended to use RG59 coaxial cable or higher standard.

### Warning

- Please use the standard accessories provided by manufacturer and make sure the device is installed and fixed by professional engineers.
- Please prevent the device surface from the radiation of laser beam when using laser beam device.

• Please do not provide two or more power supply modes for the device, otherwise it may cause damage to the device.

### Statement

- Please refer to the actual product for more details; the manual is just for reference.
- The manual will be regularly upgraded according to the product update; the upgraded content will be added in the manual without prior announcement.
- Please contact the customer service for the latest procedure and supplementary documentation.
- The company is not liable for any loss caused by the operation which is not followed by the manual.
- Please refer to the company's final explanation if there is any doubt or dispute.

# 1 General Introduction

## 1.1 Overview

This series HDCVI camera conforms to the HDCVI standard. It supports video signal highspeed, long distance transmission without any delay. It can be controlled by the HCVR conforming to the HDCVI.

## 1.2 Features

- Adopt high performance CMOS image sensor, megapixel definition.
- For 720P series, support RG59 coaxial cable transmission without any loss. The distance is over 500m. For 1080P, 4M series, support RG59 coaxial cable transmission without any loss. The distance is over 300m.
- High speed, long distance real-time transmission.
- Support HDCVI HD and analog SD simultaneous output.
- Support 3D noise reduction, excellent low illuminance performance.
- Support OSD menu adjusting parameters.
- Support DC12V power supply.
- Adopt fisheye lens, realize full-view monitoring.
- Support advanced fisheye image dewarping algorithm, output panoramic image and support multi-window picture.

# 2 Device Framework

Please see Figure 2-1 and Figure 2-2 for the dimensions. The unit is mm.



Please refer to Figure 2-3 for the device cable.



Figure 2-3

# 3 Device Installation

Fisheye camera mainly adopts ceiling mount installation, the installation location includes ceiling and wall.

### Attention

- Please install the device in time after it is opened, which is to avoid the camera module exposing in the damp environment for a long time.
- Before the installation, please make sure the installation surface is thick enough to sustain at least 3X weight of the camera.
- For side cable outlet, please make sure the direction of side cable outlet is in accordance with that of the installation position map when pasting installation position map, and pull the cable through the cable slot of the pedestal and then lock the screws firmly.
- Before you complete the installation and debugging, do not remove the electrostatic attraction film on the transparent enclosure. Otherwise it may result in injury. After removing the electrostatic attraction film, don't touch dome enclosure in case it may leave stain.
- The installation figures below are for reference only, please refer to the actual device for more details.

Please refer to Figure 3-1 for installation position map.



Figure 3-1

Please refer to Figure 3-2 for ceiling mount installation.



Figure 3-2

Please refer to Figure 3-3 for wall mount installation



Figure 3-3





### Step 1

Use the inner hex wrench from the accessories bag to unfasten the 3 hex screws on the dome camera enclosure and then open the dome enclosure.

### Step 2

Take the installation position map (shown in Figure 3-1) from the accessories bag and then paste it on the installation ceiling or the wall according to the monitor area. Please dig three bottom holes of the plastic expansion bolts according to the diagram. Take three expansion bolts from the accessories bag and then insert them to the holes you just dug and then fix firmly.

Note:

- If you need to dig a hole to pull through the cable on top of installation surface, you need to dig a cable exit hole on the installation surface according to the installation positioning map.
- If you need to pull through the cable on the side, you need to dig through the U-shape exit hole on the side of chassis to form a cable access, and then pull the cable through the side exit hole on the chassis.

### Step 3

Adjust the device chassis and pull the cable through the exit hole. Make "TOP" direction of the device identical with installation position map. Make sure the 3 fixture holes on chassis face

the three plastic expansion bolts on the surface. Take 3 self-tapping screws out from the accessories bag and fix them on the three plastic expansion bolts to secure the dome on installation surface.

#### Step 4

Take up the dome protection enclosure; aim the cable exit and cover the enclosure. Then use the inner hex wrench from the accessories bag to fasten the 3 hex screws firmly.

So far the device installation and cable connection are completed, you can check device monitoring image via back-end coding device.

# 4 Menu

## 4.1 HCVR Settings

This HDCVI camera series can adjust OSD menu via coaxial control. After connected the camera to the HDCVI series HCVR, from Main Menu->Setting->System->PTZ, you need to select the channel number for access and set control mode as HDCVI and the protocol as HD-CVI. Click "Save" button to save current setup. See Figure 4-1.

|  |  | SETTING   |      |              |
|--|--|---|------|--------------|
| STAMERA  |  | D EVENT   |      | SYSTEM       |
| GENERAL<br>DISPLAY<br>RS232<br>PTZ<br>ATM/POS<br>ACCOUNT<br>AUTO MAINTAIN<br>IMP/EXP<br>DEFAULT<br>UPGRADE | Channel<br>PTZ Type<br>Control Mode<br>Protocol<br>Address<br>Baudrate<br>Data Bits<br>Stop Bits<br>Parity | 1<br>Local<br>HDCVI<br>HD-CVI<br>1<br>9600<br>8<br>1<br>None<br>• |      |              |
|  | Default  | Сору  | Save | Cancel Apply |
|  |  |   |      |              |

Figure 4-1

## 4.2 Menu Operation

Click the right mouse button and select "PTZ Control", then you will see the "PTZ Setup" menu, which is as shown in Figure 4-2 and Figure 4-3.



Figure 4-2



Figure 4-3

See Sheet 4-1 for the details of button functions.

| Button | Function          |
|--------|-------------------|
| ▲、▼    | Select menu item  |
|        | Open menu         |
|        | Select menu value |

Sheet 4-1

If there is "4", click the "Confirm" button in "Menu Operation" interface to go to the 2nd menu. Click "Return" button to go back to the previous menu interface.

# Appendix 1 Maintenance

#### Attention:

Please maintain the device according to the following instructions in order to ensure the image effect and long-term stable operation of the device.

#### Maintenance for lens and mirror surface

The lens and mirror surface are covered with antireflection coating, so it may produce hazardous substance and lead to performance reduction or scratch, dimness etc. when it is stained with dust, grease, fingerprint and so on, please refer to the following methods to deal with once dirt is found:

Stained with dirt

Use oil-free soft brush or hair dries to remove it gently.

Stained with grease or fingerprint

Use soft cloth to wipe the water drop or oil gently to make it dry, then use oil-free cotton cloth or paper soaked with alcohol or detergent to wipe from the lens center to outward. It is ok to change the cloth and wipe several times if it is not clean enough.

### **Camera Body Maintenance**

Use a soft dry cloth to clean the camera body when it is dirty, in case the dirt is hard to remove, use a clean dry cloth soaked with mild detergent and wipe gently, make it dry later. Don't use volatile solvent like alcohol, benzene, thinner and etc. or strong detergent with abrasiveness, otherwise it will damage the surface coating or reduce the working performance of the device.

#### Maintenance for Dome Cover

Dome cover is an optical device, please don't touch or wipe cover surface directly during installation and use, please refer to the following methods to deal with once dirt is found:

Stained with dirt

Use oil-free soft brush or hair dries to remove it gently.

Stained with grease or fingerprint

Use soft cloth to wipe the water drop or oil gently to make it dry, then use oil-free cotton cloth or paper soaked with alcohol or detergent to wipe from the lens center to outward. It is ok to change the cloth and wipe several times if it is not clean enough.

#### Note

- This manual is for reference only. Slight difference may be found in the user interface.
- All the designs and software here are subject to change without prior written notice.
- All trademarks and registered trademarks mentioned are the properties of their respective owners.
- If there is any uncertainty or controversy, please refer to the final explanation of us.
- Please visit our website or contact your local service engineer for more information.